Washington Rural Health Assessment Project

Aging and Long-term Care

Summary

Washington State is among the fastest-aging states in the country. During 1990-2000, its population 45 and older grew by 37%, and its population 85 and older grew 50%. The number of residents 45 and older grew at about the same rate (36%) in Washington's large town areas and more slowly in isolated rural and small town areas (19%). In contrast, in the urban-rural fringe (the rural parts of urban counties), this population grew 68%, nearly twice the state rate.

Because of an out-migration of the working population, the percent of Washington's population 65 and older is significantly higher in small towns (17%) compared with the rest of the state (11%). Large-town populations are somewhat older than the state population (13% are 65 and older). But in these communities, the proportion of residents 65 and older varies widely—from 9% for Whitman County to more than 20% for retirement counties such as Pacific, Clallam, and Jefferson.

The increasing concentration of the aged in rural areas places greater strains on rural health services as the incidence of chronic diseases increases with age and poverty. Hospitalization rates show that, with the exception of diabetes and arthritis, chronic conditions are not more common among the aged in rural areas than among the aged in urban areas.

Access to health care and long-term care services may be a concern for rural communities. Many nursing home facilities in rural areas are facing significant financial threats and may close. Currently, 14 of Washington's 31 rural hospitals operate a nursing home. All 14 report losses on their nursing home operations averaging $12,000 per licensed bed per year, and in most cases, these losses are not covered by other operations.

Rural areas have similar numbers of nursing home beds per person 65 and older than do urban areas. But rural areas have fewer less intensive long-term care resources such as boarding homes or home health services. Despite similar bed capacity, data from 2000 show that elderly rural residents in small town areas were less likely to reside in nursing homes than were elderly urban residents.

The Washington Rural Health Assessment Project is a series of monographs on important trends influencing health status and health care access in rural Washington. These monographs are intended to supplement Washington State's Rural Health Plan. Other monographs will cover changes in demography, health care finance, health care services infrastructure, and special topics such as maternal and child health. These monographs are available on the Office of Community and Rural Health, Health Care Access Research web site: http://www.doh.wa.gov/hsqa/ocrh/har/hcresrch.htm.

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The Elderly in Rural Washington

Washington State is aging faster than many other states. During 1990-2000, the number of state residents 65 and older increased by 15%, a growth rate 20th among the 50 states. The number of Washington residents 85 and older grew by 50% and ranks 12th among the states. During this period, the 65-and-older share of the population in 15 of 28 rural Washington counties grew faster than the statewide rate—in some counties, quite dramatically.

Table 1
Population 65 and Older in Selected Washington Rural Counties

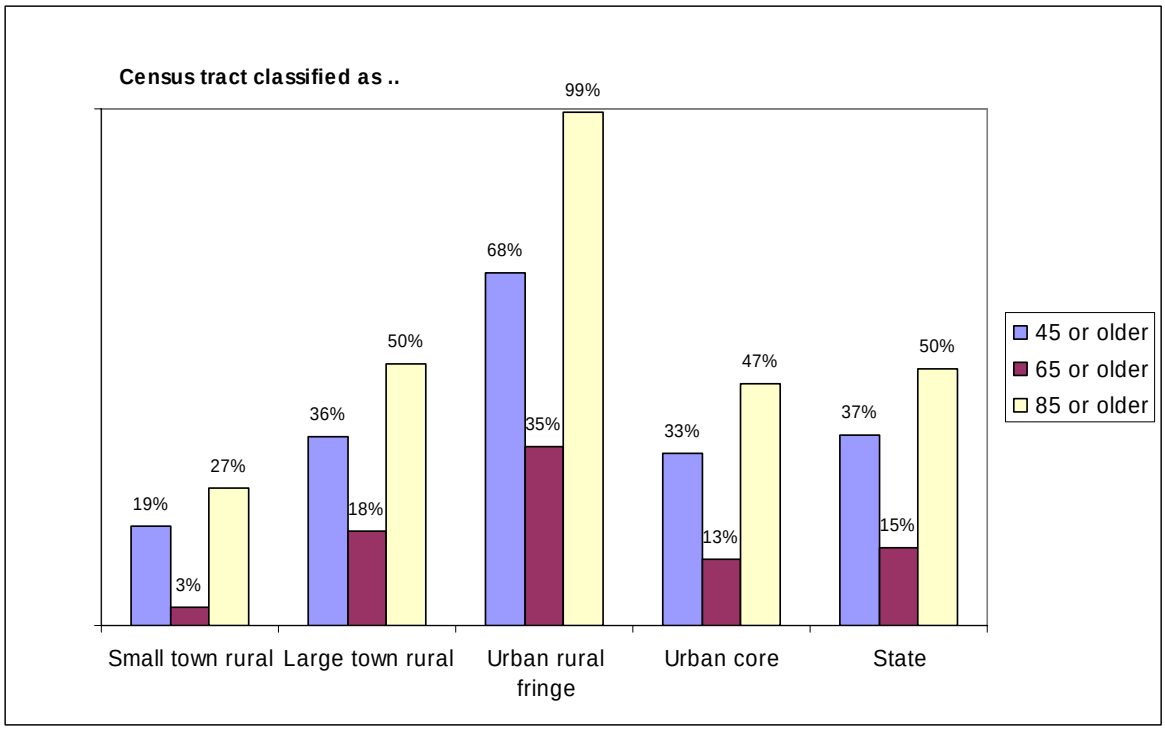
County	2000 Population 65 and Older	1990 Population 65 and Older	Numeric Change	Percent Change	Percent 2000 Population
Counties with growth rates higher than the state rate					
Pend Oreille	1,770	1,242	528	42.5%	15.1%
Ferry	919	670	249	37.2%	12.7%
Stevens	5,143	3,861	1,282	33.2%	12.8%
Jefferson	5,461	4,167	1,294	31.1%	21.0%
Douglas	4,131	3,174	957	30.2%	12.7%
Mason	8,105	6,326	1,779	28.1%	16.4%
San Juan	2,686	2,140	546	25.5%	19.1%
Grant	8,664	6,989	1,675	24.0%	11.6%
Island	10,213	8,289	1,924	23.2%	14.3%
Skamania	1,088	888	200	22.5%	11.0%
Skagit	15,004	12,494	2,510	20.1%	14.6%
Okanogan	5,569	4,647	922	19.8%	14.1%
Clallam	13,767	11,528	2,239	19.4%	21.3%
Adams	1,771	1,527	244	16.0%	10.8%
Pacific	4,704	4,088	616	15.1%	22.4%
Counties with growth rates lower than the state rate					
Lewis	10,671	9,311	1,360	14.6%	15.6%
Asotin	3,337	2,919	418	14.3%	16.2%
Klickitat	2,663	2,341	322	13.8%	13.9%
Chelan	9,314	8,188	1,126	13.8%	14.0%
Cowlitz	12,331	11,099	1,232	11.1%	13.3%
Lincoln	1,927	1,754	173	9.9%	18.9%
Wahkiakum	711	648	63	9.7%	18.6%
Kittitas	3,883	3,550	333	9.4%	11.6%
Walla Walla	8,116	7,600	516	6.8%	14.7%
Whitman	3,774	3,665	109	3.0%	9.3%
Grays Harbor	10,332	10,190	142	1.4%	15.4%
Columbia	764	761	3	0.4%	18.8%
Garfield	497	500	-3	-0.6%	20.7%

Source: U.S. Census Bureau

The growth in the numbers of the near-elderly raises concerns for long-term care planning. During 1990-2000, Washington's population 45 and older grew by 37%. As with population growth rates for residents 65 and older, growth rates for the near-elderly vary tremendously across the state. The highest growth rates during the decade were in retirement destination counties such as Stevens (60%), Pend Oreille (65%), Jefferson (59%), and San Juan (63%). In contrast, growth rates were 25% or less in the Eastern Washington agricultural counties of Lincoln, Adams, Whitman, Garfield, and Columbia.

A comparison of rural areas at the sub-county level using the Rural Urban Commuting Area (RUCA) system reveals that growth in the elderly population is not uniform across rural Washington and does not track overall population growth rates. The elderly population is growing fastest in the urban-rural fringe, slowest in small town and isolated rural communities, and at rates similar to the urban core in large town areas.

Figure 1
Percent Change in Elderly Population by Rural Classification
Washington, 1990-2000



Source: U.S. Census Bureau

These aging trends are occurring as Washington's working population (ages 18-44) is growing slowly or even declining in many rural areas. During 1990-2000, 10 of 28 rural counties lost working population or experienced growth rates of less than 1%. Consequently, the elderly are more concentrated in rural areas than in urban areas. This trend has been most pronounced in small town and isolated rural areas, where the percent of the population 45 and older increased 7 percentage points, from 36% to 43%. In large town areas and the urban core, the share increased

a more modest 3 to 4 percentage points. As shown in Table 2, the concentration of elderly increases as areas become more rural and isolated.

Table 2
Elderly Population by Age and Rural Classification
Washington, 2000

		Rural Urban Commuting Area (RUCA) Census Tracts			
Share of Population	**Total State**	**Isolated and Small Rural Areas**	**Large Town Areas**	**Urban–rural Fringe Areas**	**Urban Areas**
45 and older	33.9%	42.5%	35.1%	33.7%	33.0%
65 and older	11.2%	16.5%	13.4%	9.5%	10.8%
85 and older	1.4%	1.9%	1.7%	1.8%	1.4%

Source: U.S. Census Bureau

The population 65 and older in small town and large town areas is only slightly more likely to live below the federal poverty level than is this age group in urban areas (8% v. 7%), compared with a larger gap (16% v. 10%) for those 65 and younger. The elderly in either rural or urban areas are less likely to live in poverty because of Medicare and Social Security benefits.

Key Health Indicators

Data from the Washington Department of Health's Healthy Aging Initiative show that the burden of chronic diseases falls disproportionately on the aged. The state's mortality rates (age-adjusted deaths/100,000) are higher than national rates for three of the leading causes of death for people 65 and older:

- Stroke (68.6 v. 60.9)—Washington had the 11th highest stroke mortality rate in the United States in 1999. The percent of stroke deaths that occurred before transport was 64%, the third highest in the nation. Stroke mortality in Washington declined 6% between 1990 and 2001.
- Coronary Obstructive Pulmonary Disease (49.3 v. 44.3). COPD mortality is more prevalent among men and the white population, and it has shown no consistent trend since 1990.
- Alzheimer's (37.1 v. 18.0). The factors underlying this difference are not well understood and may include reporting methods. National Alzheimer's mortality rates have increased dramatically, but there is little Washington State information available on incidence or prevalence. One possible contributing factor is that Washington's nursing homes are more likely to have an Altzhiemer's unit than nursing homes throughout the United States (26.7 v 16.4).

The 2002 Health of Washington State contains a comprehensive state assessment of chronic disease, including a preliminary comparison of rural and urban Washington. The findings are summarized in Table 4 below. Initial findings suggest that there are few differences for most age-adjusted chronic disease indicators between rural and urban areas.

Table 3
Rural-urban Differences in Indicators of Chronic Disease

Indicator	Rural-urban Difference	Statewide Trends
Adult obesity	None detected	1990: 9% 2000:19%
Coronary heart disease mortality	None detected	1990: 200/100,000 2000: 159/100,000
Stroke mortality	None detected	No change in rates 1988-98 # stroke deaths increased 21%
High blood pressure	None detected	No change in mortality trends
Female breast cancer mortality	Lower in rural areas but not significant	Mortality rates declined 2.4% per year during 1989-2000.
Invasive cervical cancer incidence (number/ 100,000 women)	Small town: 12.6 Large town: 7.7 Urban: 7.7	Incidence rates declined 2.1% per year during 1992-2000.
Colorectal cancer incidence	None detected	Rates have been stable.
Lung cancer mortality (number/ 100,000)	Small town: 53.1 Large town: 60.9 Urban areas: 56.9	Rates declined 1.5% per year during 1993-2000.
Melanoma of the skin incidence (number/100,000)	Small town 30.5 Large town: 28.5 Urban areas: 33.2	Rates increased 5.6% per year during 1992-2000.
Diabetes prevalence	Higher in small town rural areas but not significant	1996: 3.6% 1999: 5.2%
Diabetes hospitalizations	Small rural hospitalization rate 16% higher than state rate	Significant increase
Arthritis hospitalizations (rate per 100,000)	Small town: 286 Large town: 237 Urban areas: 224	Slight increase during 1988-99

Source: Health of Washington State, 2002

For more information on:

Trends in chronic disease and health behaviors in Washington State, see The Health of Washington State: 2002

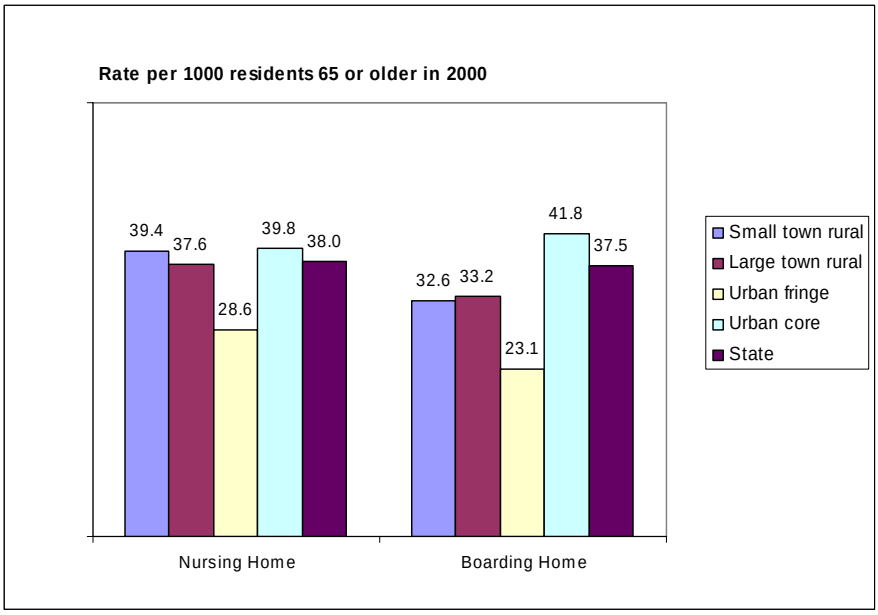
Health conditions of older adults in Washington, see *A Profile of Leading Chronic Conditions, Health Behaviors, and Risk Factors among Adults Aged 45 and Older in Washington State*, a working paper prepared by the Healthy Aging Initiative of the Washington State Department of Health Office of Health Promotion, PO Box 47833, Olympia, WA, 98504, phone (360) 236-3781.

Long-term Care Services

Although the elderly in rural areas do not appear to experience more chronic diseases than the urban elderly, chronic disease conditions place a significantly greater burden on rural health care services because of the greater concentration of the aged in these communities, especially in small town areas. Of particular concern is the continued availability of long-term care services.

The number of licensed nursing home beds per 1,000 residents 65 and older is similar in urban and rural communities, but it is significantly lower for those elderly in areas on the urban-rural fringe. Compared with elderly in the urban core, rural elderly have less access to less-intensive forms of long-term care such as boarding homes, adult family homes, and home health services. The rural elderly also have less access to the most intensive forms of care. A recent report prepared for the Federal Office of Rural Health Policy, Nursing Homes in Rural and Urban Areas, 2000 found that 11% of Washington's small town and isolated area nursing homes had an Alzheimer's unit compared to 27% of large town and 30% of urban nursing homes.

Figure 2
Availability of Licensed Long-term Care Beds by Rural Classification
March 2003



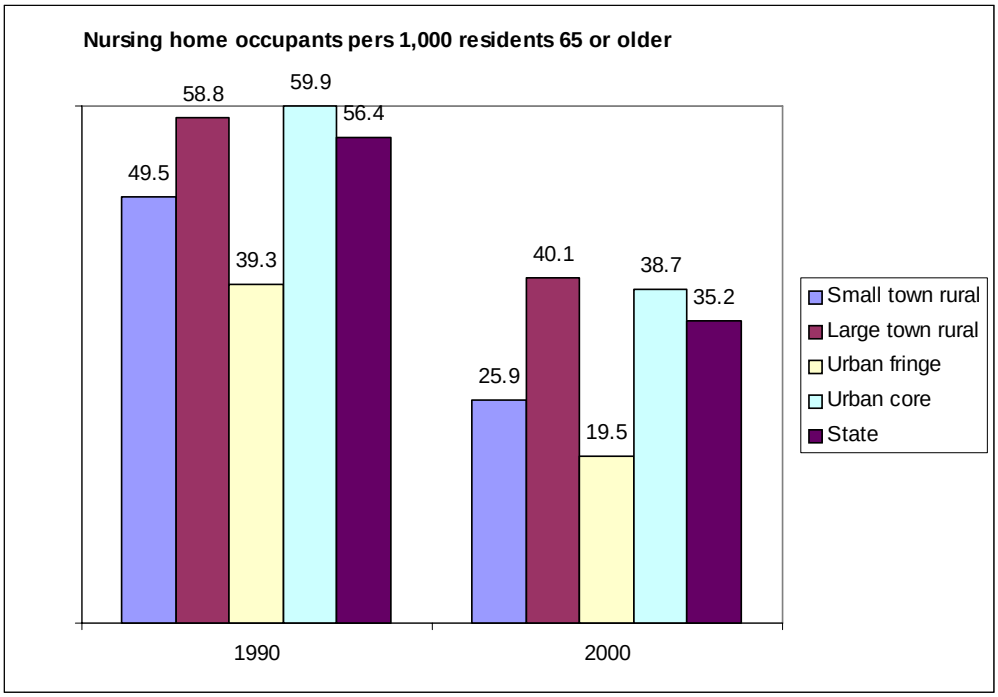
Source: U.S. Census Bureau (population)
Washington Department of Social and Health Services (2003)

Nationally, health policy makers encourage use of less-intensive forms of long-term care. Consistent with this policy, nursing home occupancy rates in all areas of Washington declined between the 1990 and 2000 Census years. Available capacity, as measured by the number of licensed nursing home beds per residents 65 and older, did not differ greatly between rural and urban Washington. But nursing home utilization was lower in both small town rural and urban fringe areas than in the urban core.

Rural Washington's long-term care capacity, especially for nursing homes, is expected to erode further. In 2000, 64% of patient's long-term care costs were financed through the state-federal

Medicaid program, which is under growing budget pressure. In small town and isolated rural nursing homes, Medicaid was the payer for 70% of patients. Medicaid reimbursement levels to providers are not keeping pace with costs. In 2003, the Office of Community and Rural Health compiled data on nursing homes operated by rural hospitals in Washington with the assistance of the Association of Washington Public Hospital Districts. Of Washington's 31 rural hospitals, 14 operated a nursing home. All 14 reported losses on their nursing home operations averaging $12,000 per licensed bed per year, and in most cases, these losses were not covered by other operations. In addition, 12 of the 14 hospitals that operated nursing homes reported what are considered poor operating margins (less than 5%, excluding tax revenue) for combined hospital operations. Significant anecdotal evidence suggests that an increase in nursing home closures may occur absent changes in reimbursement levels.

Figure 3
Nursing Home Occupancy by Rural Classification
Washington, 1990-2000



Source: U.S Census Bureau

For more information on:

National and state-by-state data on nursing homes in urban and rural areas see Nursing Homes in Rural and Urban Areas, 2000. Findings in this report differ slightly due to differences in how licensed beds are counted and urban and rural areas are defined.

Technical Notes

Definitions of rural: Comparisons of demographic trends over time in rural areas is complicated. In addition to the population growth or decline, the specification of "rural" is a moving target. Not only are there different systems for classifying what is rural, but also, the classification methods within each system have changed since 1990, as has the underlying geography (Census tract numbering and boundaries).

Caution should be exercised when making comparisons over time, since some of the change is the result of changes in definitions and classification schemes. This monograph classifies the rural areas using the Rural Urban Commuting Area (RUCA) system for most comparisons. For a more detailed discussion of alternate rural classification methods, see http://www.doh.wa.gov/Data/Guidelines/RuralUrban.htm

The RUCA system classifies Census tracts using Census Bureau definitions of urbanized areas and urban clusters to define urban areas, large town (10,000 to 49,999) and small town (2,500 to 9,999) core areas, and isolated rural areas. Adjacent Census tracts are defined on the basis of their commuting relationship (greater than 30% commuting) to these core areas. Individual Census tracts are classified into 10 major classes, ranging from urban core to isolated rural areas. For a detailed description of this system, see http://www.fammed.washington.edu/wwamirhrc/

For this analysis, we consolidated the 10 RUCA classes into four: urban core areas, urban-rural fringe areas (areas with a strong commuting relationship to urban cores), large town areas, and small town and isolated rural areas. The current RUCA system was built using 1990 Census tracts and commuting data and is currently being revised. The update is expected out in late 2003. Consequently, when we compare changes over time, we are comparing what has changed within areas that were classified as urban, urban-fringe, large town, and small town in 1990. For example, three large town areas in the state were reclassified as urbanized in the 2000 Census. In the RUCA-based analyses, these areas remain in the large town category. This is a not-unreasonable assumption because the population in these areas grew from slightly less than 50,000 to slightly more than 50,000.

Some of the rural-urban comparisons of chronic disease indicators in The Health of Washington State were made using county-level rather than sub-county data. In these cases, the population within counties was tabulated by RUCA code and counties assigned to a type based on this distribution. See specific chapters in The Health of Washington State to identify the method used.

Finally, Census tract boundaries were renumbered and in some cases redrawn between 1990 and 2000. This does not affect Census definitions and comparisons, which are made at a smaller level of geography. The RUCA system was built using 1990 Census tracts. To allow comparisons between Census years, 1990 RUCA codes for Census tracts were overlaid on 2000 RUCA codes. In most cases, boundary changes did not affect RUCA codes. Portions of 60 of the state's 1,318 Census tracts in 2000, covering less than 1% of the state's population, were affected. These tracts were manually assigned to the RUCA code with the largest population.